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ABSTRACT

The Eastern District High School bilingual-bicultural program served 367 Hispanic students in grades 9 through 12. Students received instruction in English as a Second Language and/or reading English, native language arts, math, science, and social studies. Students were mainstreamed for art, music, physical education, and health. Elective courses were also available. Non-instructional program components included staff development, curriculum development, extra-curricular activities, parental and community involvement, and affective services. Academic achievement of students was measured by standardized and teacher developed tests. Students demonstrated gains in English reading, native language arts, and mathematics at all grade levels. Achievement in other areas was mixed. Evaluators observed program operation and determined that it was well implemented and successful. Recommendations for future program implementation are included as well as tables of achievement data. (MK)

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EASTERN DISTRICT HIGH SCHOOL

INTEGRATED BILINGUAL DEMONSTRATION PROJECT

FOR HIGH SCHOOLS

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NEW YORK CITY BOARD OF EDUCATION

OFFICE OF EDUCATIONAL EVALUATION

DR. RICHARD GUTTENBERG

ADMINISTRATOR

FINAL EVALUATION REPORT

EASTERN DISTRICT HIGH SCHOOL

INTEGRATED BILINGUAL DEMONSTRATION PROJECT

FOR HIGH SCHOOLS

1978 - 1979

PRINCIPAL:

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PROJECT DIRECTOR:

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EASTERN DISTRICT HIGH SCHOOL

INTEGRATED BILINGUAL DEMONSTRATION PROJECT FOR HIGH SCHOOLS

1978-1979

Location: 227 Marcy Avenue, Brooklyn, New York

Target Language: Spanish

Year of Operation: 1978-79, Fourth Year

Number of Participants: 367 Students of Hispanic Origin

Principal: Mr. David Dicker

Program Coordinator: Mrs. Haydee C. Surillo

I. Program Description

Introduction:

The bilingual project at Eastern District High School was mandated to develop an integrated bilingual-bicultural program which would offer students of limited English Language Proficiency, instruction in English as a Second Language as well as course-work in content areas in the native language. It was instituted not only to hasten students' transition to English language usage, prepare them for meeting high school diploma requirements, and foster achievement in the larger community and in further education or training, but also to serve as a demonstration center for the secondary schools in other parts of New York City. In 1978-79, the program's fourth year of operation, it proved to be an exemplary program indeed.

Demographic Context:

Eastern District High School is located in the Williamsburg section of Brooklyn. It is an economically depressed area, whose residents live in run-down tenements, brownstones converted into

apartments and a few private homes. The area is populated by Hispanics, Blacks, and Hassidic Jews. (The Hassidic population is not represented in the school, since their children attend private secular schools in the neighborhood.) Relations among the various ethnic groups are relatively tranquil.

Eastern District High School falls in District 14, which has (according to the Fleischmann Commission Report) the City's second highest concentration of Spanish-speaking students. The Program Coordinator noted that the District's population is approximately 68% Hispanic. (That figure does not reflect the considerable number of illegal aliens who live in the neighborhood; their children are represented in the school population, but not in the Bilingual Program.) Eastern District's Principal stated that the school population is 63% Hispanic, 36% Black, 1% Other; the Program Coordinator stated that its Hispanic population is approximately 70%. According to the 1976-77 School Profiles, the Hispanic population was 67.7%.

Eastern District serves a population which is below poverty level. The Coordinator reported that of the 3200 students enrolled in the school, virtually all come from low-income families; Program students number among the neediest. A markedly high rate of mobility characterizes the area, and contributes to Eastern District's low attendance level--the lowest of any public high school in New York City. Eastern District also has the City's highest drop-out rate.

Police at the 90th Precinct reported that the school's immediate vicinity is not a high-crime area. The Program Coordinator and Program students noted, however, the presence of drug traffic in and around

the school; the area just south of the school is characterized by considerable gang activity and vandalism, as well as more serious crimes.

Site Characteristics:

Most Program classes are conducted in the Mini School, a temporary structure located in the school yard of Eastern District High School. Those classes which cannot be accommodated by the Mini School or which require special equipment (for example, ESL through Typing) are held in the main building. Students have free movement between the two buildings during class hours.

The Mini School, a single-level structure, consists of an office, six classrooms, and a seventh room which serves as a resource center. An end of the corridor has become a makeshift science laboratory which, despite its rudimentary set-up, is well utilized.

While the Mini School's exterior is literally covered with graffiti, the interior betrays no vandalism. Bulletin boards in halls and classrooms are well organized and up-to-date. The science teacher said that program students have treated equipment (some of which is quite accessible in the hallway lab) with care.

When Eastern District occupies new facilities in 1981, the Mini School will be housed in a wing of the school building, which will include a resource center with five classroom clusters and a science lab.

Program Participants:

The target population served by the Bilingual Program during 1978-79 consisted of 367 Hispanic students in grades 9 through 12. None were American born. Spanish was the native language of all. While the largest number originally came from Puerto Rico and the Dominican Republic, others were born in Ecuador, Colombia, Panama, Peru, El Salvador, Mexico, Honduras, Nicaragua and Costa Rica. Approximately 5% of Program students entered with referrals from feeder schools, including P.S. 49, 50, 71 and 116. The vast majority of participants entered the program as new immigrants; it is their first educational experience in the mainland U.S.

All entering program students were of limited proficiency in English; indeed, 90% spoke no English whatsoever. Eligibility was determined on the basis of evaluation by Program personnel, and on the basis of performance on the Language Assessment Battery (LAB). There was no clear cut-off point in terms of LAB score. Students enrolled in the bilingual program tested well below the 20th percentile; the Teacher Trainer noted that considerably more Eastern District students score below the 20th percentile than can be accommodated by the Bilingual Program. (Other students are given ESL instruction under Tax Levy funding.) Program personnel therefore weighed not only linguistic need, but also emotional and/or adjustment problems; they gave priority to students who would benefit from the Mini School's more restrictive, protective environment, as well as from its instructional component.

Health problems were also taken into account. Such problems are common among new immigrants; the Program Coordinator mentioned that several instances of tuberculosis had been detected among Program students. A number of students were epileptic; they were

enrolled in the Mini School, where they received individual attention in a more secure environment than the main school offered, as well as supervision in such matters as taking medication.

Other special problems of the target population call for a program that transcends the classroom. Aside from negotiating new cultural terrain and an alien educational system, the recent immigrant must deal with such immediate problems as severe financial strain, inadequate housing, and the lack of clothing suitable for the northern climate. These factors undermine educational achievement, and cause or contribute to low attendance and high drop-out levels. The Program must therefore attend to not only its target population, but also the students' parents and/or guardians.

A distinguishing feature of this target population is its broad spectrum of educational preparedness, and the consequent diversity of need. Some students, for example those transferring from urban Puerto Rican schools, function in the classroom at a relatively sophisticated level. Others of the same age group, particularly those coming from rural areas, have had little or no formal schooling. Of these, some cannot read or write in their native language.

Program students for the most part came from the school district. Exceptions were those referred from other districts by the Board of Education. The Program has become well known within the community as well as in other districts; requests for enrollment from parents (and from local institutions, such as hospitals) were received regularly by the Program Coordinator, and far exceeded the Mini School's capacity.

Budget Allocations:

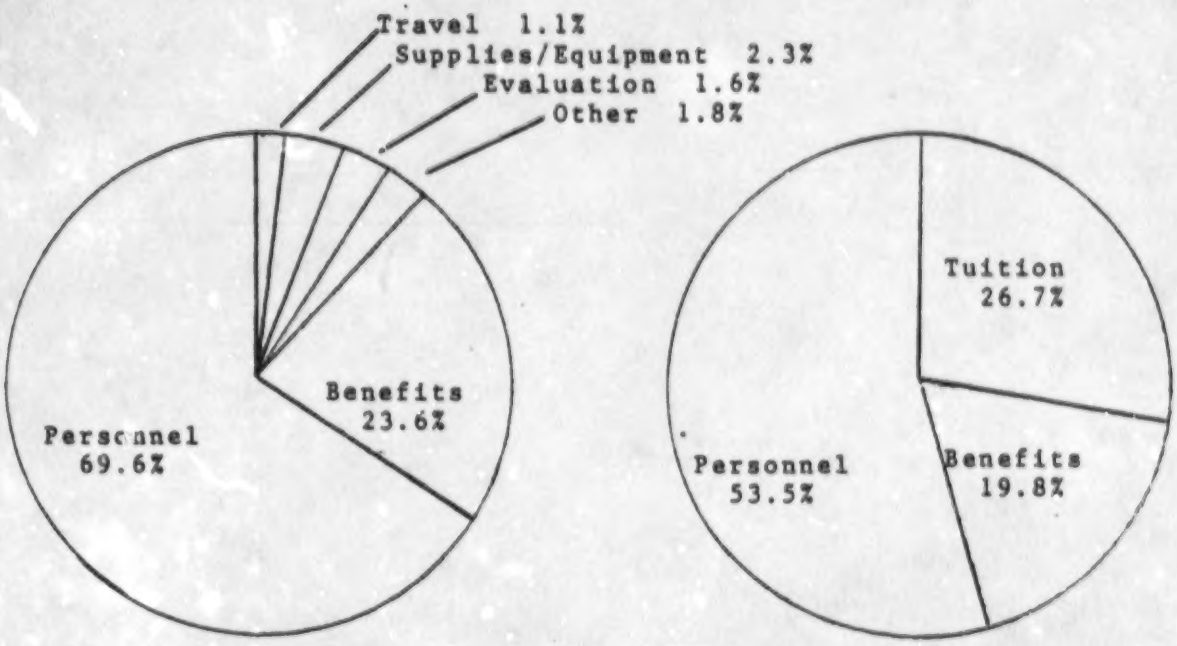
The Program's operating budget for the school year 1978-1979 was $237,582, of which $206,838 made up the basic budget while $30,744 was allocated for the training budget. Indirect costs, calculated at 7.5%, totalled $16,576. Per student cost was $647.36.

Expense categories were set forth in the following manner:

1.	Personnel: salaries paid to 6 Title VII staff, and hourly wages paid to 4 paraprofessional personnel	$133,840
2.	Training personnel: salary paid to 1 Teacher Trainer (75% of full-time)	15,300
3.	Fringe benefits: covering 6 full-time personnel plus the Teacher Trainer (75% of full-time)	51,080
4.	Travel: travel and related expenses for out-of-town conferences	2,200
5.	Equi nt: duplicating apparatus	3,000
6.	Supplies: instructional and general supplies	1,466
7.	Contractual evaluation	3,000
8.	Tuition and fees: coursework by Program staff	7,628
9.	Other: telephone, postage, local travel, materials not covered in other categories	3,492
	DIRECT COSTS	$221,006
10.	Indirect costs: 7.5% of total direct costs	16,576
	TOTAL	$237,582

Chart 1

Budget Allocations, 1978-1979

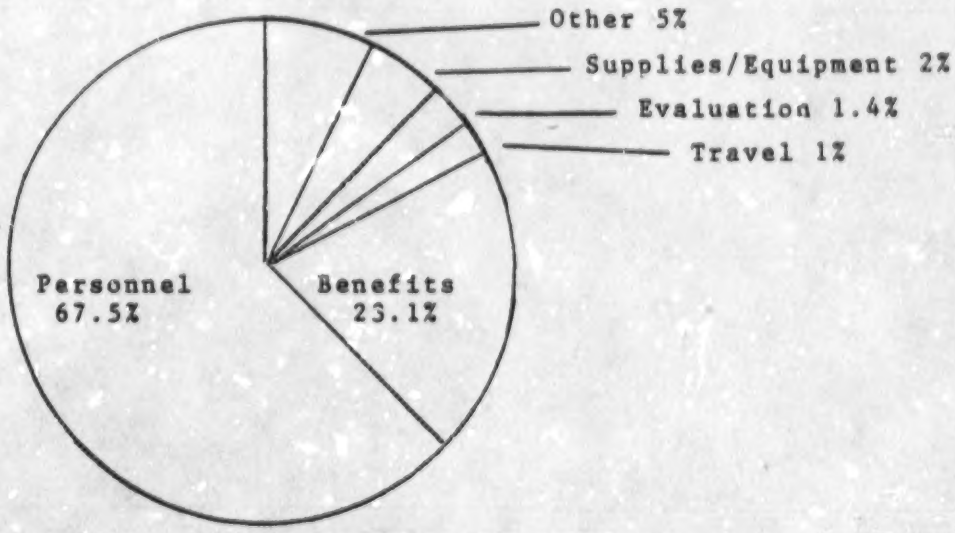


BASIC BUDGET

Direct costs : $192,407
Including 7.5% indirect costs: $206,838

TRAINING BUDGET

Direct costs: $28,599
Including 7.5% indirect: $30,744



TOTAL BUDGET

Direct costs: $221,006
Including 7.5% indirect costs: $237,582

Personnel:

The Bilingual Program was staffed by the following bilingual personnel:

Number	Title	Funding Source (s)
1	Program Coordinator	Tax Levy
1	Grade Advisor	Title VII
1	Teacher Trainer (75% of full time)	Title VII
3	Resource Teachers (Math, Science, Social Studies)	Title VII
1	Secretary	Title VII
6	ESL Teachers	Title I

In addition, 27 other paraprofessionals and regular high school personnel participated in the Bilingual Program. These included:

2	English Reading Teachers	Tax Levy
4	Spanish Teachers	Tax Levy
2	Math Teachers	Tax Levy
2	Social Studies Teachers	Tax Levy, Chapter 720
2	Science Teachers	Tax Levy, Chapter 720
6	Teachers (other subjects)	Tax Levy
9	Educational Assistants/ Associates:	
	4 ESL	Title I
	1 English Reading	Tax Levy
	4 Bilingual Education	Title VII

II. Major Program Components

A. Instructional Component:

The instructional component was designed to meet participants' widely divergent needs, and to promote achievement (and the desire to achieve) in various content areas and at various levels.

Each student's program was assembled on the basis of the student's profile. That profile consisted of background data, including a record of the student's progress and grade-level advancements, recommendations by the Program Coordinator, Grade Advisor, and Teachers, and the results of various examinations. Teacher-made tests determined achievement in content areas. Performance in Spanish was assessed through the use of standardized tests, including the Inter-American Prueba de Lectura, the BINL, the LAB, the New York City Language Fluency Scale, the Stanford Achievement Test, and the Metropolitan Reading Test; the Crest Test was also administered.

Each student received instruction in English as a Second Language and/or English reading, instruction in Native Language Arts, and coursework in the content areas of Mathematics, Science, and Social Studies. The Bilingual Program also offered elective subjects. In addition, students took Art, Music, Physical Education, and Health classes in the main school with mainstream students.

1. English Instructional Program

English as a Second Language instruction was provided at 4 different levels of proficiency. Students received 2 periods of ESL instruction daily, plus 1 period daily of remedial Reading Skills (Tax Levy).

ESL Level	Number of classes
Levels 1-4	12
Intermediate	6
Intensive	2
Advanced	9
Typing ESL	3

The language of instruction in these classes was English. The following textbooks were utilized in ESL classes:

Lado Series - 1-6
Study Skills for the ESL Students
English Language Skills
English Steps by Steps
English Patterns Practices
American English
Advancing English
American English Guided Composition
International Folk Tales
A Tale of Two Cities
Kidnapped
Moby Dick
Sherlock Holmes
Skits in English as a Second Language
Writing English as a Second Language
Let's Write English

ESL Through Typing: A two-year sequence offered as an elective, was incorporated into the Program in 1977-78. (A third year was planned for 1979-80.) Designed by a Tax Levy ESL teacher, the course allowed students to enhance English Language proficiency while learning a marketable skill. (See curriculum development section).

Reading in English was taught in a reading workshop and individualized reading instruction. The workshop was geared to help students meed the new and more rigorous New York State graduation requirements.

Writing Workshops represented an innovative feature of the English instructional program. Students who had completed two years of ESL, or who demonstrated equivalent proficiency in English, were offered this course, which provided practice in applying basic skills. The curriculum was geared toward first, providing the writing skills needed to pass citywide competency examinations, and second, helping students function effectively in various situations which require writing ability. To these ends, the curriculum called for: a review of basic grammar and sentence structure, practice in writing and addressing various kinds of personal and business letters, instruction in filling out various kinds of forms and applications and preparing a simple resume. The workshop incorporated some aspects of vocational guidance; aside from resume preparation, it offered practice in reading and understanding classified ads, writing letters of application, filling out job-related forms, and--through role-playing in the classroom--taking interviews.

An offshoot of the writing workshops was the Mini School Gazette, the ESL newspaper written and produced by program students. Samples of other student writing--including several poems and essays entered in writing competitions--reflected substantial achievement in this area.

2. Native Language Arts

Instruction in the native language was received by each student for 5 periods each week. Classwork aimed at developing Spanish language skills while reinforcing cultural identity. Because Program students entered with markedly divergent levels of native language proficiency, three levels of special instruction were designed to meet the needs of initially illiterate or less literate students.

Level I: A strong component of the NLA program was the intensive instruction offered to those students who arrived in the U.S. at high school age with little or no formal education, and who had no reading or writing skills whatsoever. Working at this level were other students who may have attended elementary school in their native countries for three or four years, but who remained functionally illiterate. Level I instruction sought to develop fundamental skills through a curriculum which challenges illiterate students, rather than patronizing or otherwise disheartening them. This effort required preparation of appropriate materials, since most language primers are aimed at young children or at those learning Spanish as a second language.

Level II: Instruction was offered to students who demonstrated minimal competency in reading and writing, but who needed to strengthen skills in order to function effectively in content area classes.

Level III: Instruction was given to more advanced students who have mastered basic skills but who needed to develop greater comfort in reading and writing in Spanish.

In addition, students were offered a full program of instruction in Spanish ranging from regular level 1 to the pre-college level, as follows:

Level	No. of classes	Average enrollment
1-2	6	35
4-5	4	35
6-7	5	35
8	1	43

The following is a list of some of the books used in Spanish classes:

Asi Escribimos
Lectura #2-3-4
Mi Primera Fonetica
Conozca Su Idioma
Espanol Basico
Espanol Activo
Espanol al Dia #1-2
Lengua Viva y Gramatica
Lengua Activa 1-2
La Tribuena
Literatura Hispanoamericana
Ortografia Functional #6
Ortografia #7
Romancero del Espanol
Poesias de Cervantes
Niebla
El Conde Lucanor
Platero y Yo
Mundo Hispanico
El Greco

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Asi Escribimos
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Lengua Activa 1-2
La Tribuena
Literatura Hispanoamericana
Ortografia Functional #6
Ortografia #7
Romancero del Espanol
Poesias de Cervantes
Niebla
El Conde Lucanor
Platero y Yo
Mundo Hispanico
El Greco

3. Content Areas:

A remarkable achievement of the Bilingual Program was its development of content area offerings which challenged students functioning at various levels of competency and sophistication. Bilingual instruction (90% Spanish/10% English) was provided in Mathematics, Science, and Social Studies. Each of the subjects listed in Table I was offered in 1978-79 for 5 periods each week. (See the section on curriculum and materials development for amplification of Program-developed curricula and manuals.)

Social Studies course offerings reflected the ethnic composition of Program students. Social studies courses included not only World History, World Geography, U.S. History, and Economics, but also Latin American studies, with a stress on Puerto Rican and Dominican studies (see the section on electives). The aim of these courses was to satisfy mandated high school diploma requirements while developing and reinforcing an appreciation for the diversity of Latin American culture, as well as for the particular heritage of the students' own native countries.

Instruction in U.S. History and Economics further aimed at helping Program students adjust to their new environment. The Economics curriculum, for example, was designed to foster understanding of basic economic principles, institutions, and movements, while providing practical skills through consumer education and vocational (especially job-seeking) guidance. The Social Studies Resource Teacher stressed the lack of consumer education materials in Spanish, and said that she devotes considerable time to translating information for students.

The Program Coordinator emphatically stated that Program students are hampered as much, if not more, by the cultural barrier than by a purely linguistic barrier. Therefore, in conjunction with Social Studies classwork, opportunities have been provided for students to get familiar with their neighborhood and city--the resources and the problems. (See section on Community Involvement.)

Science: Program personnel apparently placed particular stress on preparation of students in the sciences. The Program Coordinator asserted that in Science and Mathematics, bilingual students were generally capable of achievement far surpassing the expectations of educators. During 1978-79, 120 Program students were enrolled in General Science; a greater number took more advanced Science courses, including biology, chemistry, and biochemistry. Observation of a chemistry class (the subject of which was chemical bonding) revealed that students were functioning at a relatively advanced level, and seemed to be absorbing the material. They were attentive, and answered questions readily.

Mathematics: Offerings ranged from basic Mathematics through Intermediate Algebra. Approximately half the Program's students were enrolled in Pre-Algebra; 60 students with less developed skills took basic Mathematics courses; others who were able to achieve at more advanced levels took Algebra, Geometry, and Intermediate Algebra. The Program Coordinator noted that in the future, Trigonometry will be introduced.

4. Elective Courses:

Tax Levy funding enabled Program students to receive instruction in a range of subjects offered as electives. These included both content area courses of special interest to the Program's population (for example, Latin American Studies), and courses offering practical information and guidance, particularly in the area of health. Elective courses included: Medical Office Practice, Health Careers, Medical Emergency Techniques, Hygiene, and Ecology. Career Orientation is also offered.

In 1978-79, Program students were offered instruction (through Tax Levy funding) in French I and French II. Those offerings were introduced as a means of enrichment for the more advanced student, and also to give students a sense of adventure.

5. Mainstreaming:

Program policy has been to mainstream students as they demonstrate sufficiently developed English language skills to allow them to receive instruction in English, and to function in mainstream classes without becoming discouraged or frustrated enough to drop out. The transitional period generally requires two to three years; the Program Coordinator stated that graduating class members generally take all subjects in the main school.

Mainstreaming is recommended at the discretion of the Program Coordinator, Grade Advisor, and classroom Teachers; parental consent is sought. Thirty students were mainstreamed in 1978-79. Parents have tended to resist mainstreaming quite adamantly, however; they are reluctant to exchange the structured personal setting of the Mini School and the individual attention available to students and parents, for the more impersonal environment of the main school. In such cases, the student is retained in the Program, particularly if mainstreaming would result in a student's dropping out or being withdrawn from the school altogether by the parents. (See Recommendations).

TABLE 1

Content Area Course Offerings, Registration, and Texts

Content Area	Subject	Number of Classes	Number of Students	Number of Teachers	Number of Paras	Texts
SOCIAL STUDIES	World Geography	3	35	2	2	Atlas Escolar Geografia Universal Lands of Latin America Guia de Estudios (Geografia Universal) Viajemos por America
	Puerto Rican History	2	32 ea.	1	1	Historia de Puerto Rico Heroes de Puerto Rico Isla y Pueblo Cuentos de Puerto Rico de Hoy
	Modern History	2	42/45	2	1	America Latina de Ayer y Hoy Adventuras en La Historia 1-4,5,6,7,8,9, Historia de la Humanidad El Hombre Y Su Historia Guia de Estudios (Historia Universal)
	Economics	3	35/35/42	1	1	Economics for Young Adults Economia Para Todos Teacher-developed materials
SCIENCE						
	General Science	3	40 ea.	1	1	Pathways in Science

(con't)

Biology	4	40 ea.	1	1	Fundamentos de Biologia Biologia (Smallwood) Biologia Humana El Microscopio Modern Biology
Chemistry	1	22	1	1	Quimica
Biochemistry	2	41	1		
Hygiene	1	42	1		Biologia Humana
Ecology	1	30	1		Nuestro Mundo Biologia del Hombre Y Su Ambiente

MATHEMATICS

Mathematics	2	30 ea.	2	1	Matematicas (Silver Burdett) Repaso Matematico Bilingue Contemporary Mathematics Modern Mathematics Math Practice
Survey Math	2	30 ea.	1	1	
Pre-Algebra	7	25 ea.	2	1	Arithmetica
Algebra	1	33	1	1	Algebra (Baldor)
Geometry	1	22	1	1	Geometry Geometria y Trigonometria (Baldor)
Intermediate Algebra	1	35	1	1	Algebra

B. Non-Instructional Components

1. Staff development: considerable weight was given to this component of the Program, which included:

a. Regular classroom observation by the Teacher Trainer, who offered recommendations as to methodology, etc.;

b. Teacher Trainer conferences, including discussions of classroom observations, as well as weekly conferences attended by the Coordinator and Grade Advisor, and biweekly conferences including those personnel and the Project Director.

c. Teacher workshops conducted regularly to familiarize Teachers with new curricula, materials, and techniques. Workshops during 1978-79 covered such areas as curriculum development (the intercurricular approach, text selection, development of reading and writing skills), effective resource utilization (the Resource Center, audio-visual and other media), special Program concerns (teaching basic skills to illiterate adolescents, career and vocational guidance), and classroom technique (effective utilization of the paraprofessional in the classroom, testing and evaluation).

d. Coursework at major universities by teachers and paraprofessionals. Teachers attended courses at the City University (Hunter), and New York University. The paraprofessional personnel were all enrolled in college courses; eight had already obtained an Associate Degree and were working toward a B.S. or B.A. degree.

e. In-Service Seminars conducted to enhance the skills of paraprofessional personnel, provided on a voluntary basis by Program personnel.

f. Conferences and symposia attended by Program personnel.

2. Curriculum development: the Program Coordinator, Teacher Trainer and Resource Teachers have worked toward developing and producing a considerable body of curriculum and course materials. Curriculum development was a major focus of Teacher Trainer conferences and workshops.

Program-developed curricula cover various subjects, including Economics, Arithmetic for Daily Living, and the Writing Workshop. These curricula stressed practical information and job-related skills, while providing a grounding for further education.

Manuals have been prepared for use in the more advanced Science classes, since existing texts do not adequately meet the needs of bilingual Hispanic students. These manuals also covered related content areas which were not otherwise available in course offerings. The Chemistry Manual, for example, was designed to cover important aspects of applied chemistry while providing an introduction to the study of physics.

Materials drafted and implemented by Program Personnel included the following:

English Instructional Program:	Transference of Reading Skills A Focus on Reading, Grades 5-12 Writing Workshop curriculum Special reading curriculum ESL Through Typing curriculum
Mathematics:	Matematica Comercial Arithmetica Practica Algebra Manual Metric System curriculum

Science:	General Science Manual Biology Manual Chemistry Manual Biochemistry Manual
Social Studies:	Economics curriculum
Other:	Practicas de Oficina

The Program Coordinator reported that she regularly received requests from other schools in the City and State for copies of program-developed curricula and materials.

3. Extra-curricular activities: Program students participated in extra-curricular activities both in the Mini School and in the main school. They were active in sports--particularly track and baseball--and in more than a dozen clubs, including the ESL Club, Aspira Club, Health Club, Poetry Club, Science Club, and the new Current Events Club. Students, teachers, and parents have taken part in musical reviews, plays, and exhibits. In addition, students participated in special events and celebrations outside the school, such as the festivities at the N.Y.C. Board of Education marking Pan American Day. Program students have entered in various competitions outside the school, including the City Science Fair.

4. Parental involvement: Parental involvement was an integral part of the Program's philosophy and function. An active Parent Advisory Committee composed of 43 parents and students met monthly to formulate or discuss Program objectives, and to evaluate progress. Beyond this formal participation, parents met often with Program Personnel. The Program Coordinator not only encouraged parental awareness and concern: she insisted on it. She said that in order to ensure attendance and promote achievement, Program personnel exploited the respect for parental expectations and dis-

cipline which characterized the students' cultural tradition. If a Program student cut classes or otherwise became a discipline problem, the parents or guardians were called in and urged to help deal with the problem--to call the school each morning, for example to make sure the student had indeed arrived.

Parents were also kept fully apprised of their children's achievements. They were encouraged to call or visit Program personnel if they wished to discuss a problem: they were invited to come to the Mini School on Wednesdays and Thursdays to speak with staff members or to observe Program activities.

Instruction and informal counseling were provided by Program personnel on a voluntary basis. Parents were often at the Mini School at 7 AM or in the late afternoon for instruction or advice.

Parents' decided responsiveness to Eastern District's Bilingual Program reflected the stake which they had in their children's participation. Most went to great lengths to enroll their children in the Mini School and to keep them there. They were apparently heartened by the high degree of attendance, the low drop-out rate, and the achievements of Program students. Aside from students' achievements, the parents themselves felt more secure dealing with the Mini School's environment than with the larger educational structure.

5. Community involvement: Eastern District High School's Bilingual Program has apparently become a visible and active element in the community. This stems, in part, from the Program Coordinator's stated determination to utilize every possible community resource to enhance her students' educational experience and cultural adjustment. She worked to make the Program known to local agencies, the police and fire departments, health care services, public libraries, and armed forces recruiters, and she apparently did not hesitate to call on any of them if she needed assistance. Students visited or hosted representatives of those agencies or institutions; they also visited local banks and businesses in conjunction with the Economics curriculum. Several students did volunteer work at local hospitals in conjunction with health courses. Field trips to other parts of the city, including visits to museums and historical sites, were made by students and parents.

Information about the program was disseminated to the community by means of the Program newsletter, the Mini School Gazette, the school newspaper, the ESL/LEL/MLA Newsletter (published by the Board of Education), and announcements in local newspapers. A Program student participated in the radio broadcast The School Scene with Chancellor Frank Macchiarola.

6. Affective services:

Bilingual guidance was available mainly through the services of the Program Coordinator, Grade Advisor, and other personnel, who made themselves accessible to students during the school day as well as before or after school hours. During the site visits, the Evaluator noted that Program students came to the Mini School office comfortably and frequently to ask questions or seek help.

Disciplinary problems among Program students were minimal, comprising fewer than 1% of guidance referrals. Such referrals related instead to family problems or to difficulties stemming from financial hardship (i.e. medical, dental or housing problems). Students often required referrals to welfare agencies or help with such practical matters as obtaining transportation passes or adequate clothing.

The Program Coordinator stressed the pressing need for a bilingual guidance counselor. In the absence of a professional Program guidance counselor, other personnel offered whatever help they could Referrals to medical and dental services were made, for example. A rummage sale was held to allow Program students to purchase clothing (for a nickel or dime) which they would not have accepted gratis. When serious problems were identified, the Program's paraprofessional personnel (who were recruited from the community) often made home visits on a voluntary basis. Teachers also made such visits on occasion.

Career and vocational counseling were incorporated into the curricula of several courses, including Economics and the

Writing Workshop. Sessions with a guidance counselor from the main school also focussed on career orientation. The Evaluator attended one such session, which was aimed at preparing an 11th grade Social Studies class for participation in a career orientation day at Columbia University.

III. Goals and Objectives

The Integrated Bilingual Demonstration Project for High Schools at Eastern District was designed to offer bilingual instruction and supportive services to participating students, with the aim of helping them to overcome linguistic and cultural barriers to achievement, to enable them to effect a transition to English language usage while retaining a sense of cultural identity and building self-esteem. Program personnel aimed at utilizing every possible resource in the family, school, and community to realize these goals, and to deal with the severe socio-economic problems which typically lead to absenteeism or dropping out. They sought to challenge students, to orient them toward achievement not only in the Mini School, but also in activities, competition, and examinations which were school-wide or City-wide.

Measurable objectives stated in the Program's proposal and evaluation design included the following:

English and Native Language Arts:

1. At least 75% of participating students will have acquired, by the end of the school year, sufficient proficiency in English to advance one whole level on the Oral Language Ability Rating Scale ("Puerto Rican Proficiency Scale") both in the affective and receptive scales.

2. Participating students will demonstrate statistically significant growth in reading in English, as measured by the appropriate level (4 or 5) of the Stanford Achievement Test.

3. Participating students will demonstrate statistically significant growth in reading in the Native Language (Spanish). This will be measured through teacher-made tests as well as through the standardized Inter-American Reading test, Prueba de Lectura (Level 3).

Content Areas:

4. A significant number (65%) of participating students will pass standardized tests and teacher-made tests in the content areas of Social Studies, Mathematics, and Science. The passing mark on these tests will be 65%.

5. At least 65% of the students will attain a significant improvement in score between initial and final testing in the pre-post standardized test, Prueba de Matematica.

Student Attitude:

6. The attendance of participating students will be at least 20% higher than that of non-participating students.

7. Program students will have a rate of lateness and class-cutting at least 20% lower than that of non-participants.

8. The drop-out rate will be at least 25% lower than that of non-participating students.

9. In the area of discipline, Program students will have at least 20% fewer referrals to Deans, Guidance Counselors, or Principal than non-participating students.

Continuing Education:

10. At least 80% of graduating students will enter institutions of higher learning.

Other stated goals included the following:

1. Science students will enter their exhibits in the City Science Fair.

2. Special programs for career orientation will be conducted. These programs will include visits to various local institutions and enterprises.

3. A bilingual newspaper will be published by students, with the participation of mainstream students and with teachers serving in an advisory capacity.

4. Students will increase their awareness of their cultural and linguistic heritage as well as self-esteem through participation in programs presented on Puerto Rican Discovery Day and Pan American Day.

5. Students will develop a sense of responsibility toward their community through participation in celebrations of U.S. holidays.

6. Participation of parents will be encouraged.

7. Sample copies of bilingual program-developed materials will be made available to any educational agency.

8. The skills of paraprofessionals working in the Program will be improved.

9. A better understanding between the main school's students and teachers and those of the Mini School will be fostered.

IV. Assessment Procedures

To determine whether students met Program-set objectives, the following instruments and procedures were utilized:

1. To determine whether participating students demonstrated improvement in various areas of instruction, the following standardized achievement tests were administered on a pre/post basis:

Area Assessed	Instrument
Reading in English	Stanford Achievement Test (SAT)
Reading in Spanish	Prueba de Lectura
Mathematics	Prueba en Matematicas

It was expected that students would demonstrate significant growth in these areas when pre- and post-test mean scores were subjected to a correlated t-test.

2. To determine whether participating students demonstrated improvement in English language proficiency, the New York City Language Fluency Scale (both Expressive and Receptive Modes) was administered. The number and percentage of students improving one scale level was calculated and compared to the criterion for success.

3. To determine whether participating students demonstrated mastery of content area curricula, teacher-made final examinations in Mathematics, Science, Social Studies, and Native Language Arts were administered to students of all grade levels in Fall 1978 and Spring 1979. The percentage of students passing each subject was calculated and compared to the criterion level.

4. To determine whether participating students demonstrated a positive attitude toward school, attendance records were maintained throughout the school year and compared with those of the main school population.

5. Further comparisons between the Mini School and main school populations were made in terms of: disciplinary referrals, drop-out rates, and percentage of students enrolling in institutions of higher learning.

V. Findings

The following sections present the results recorded for the objectives and procedures outlined in the preceding pages:

Tables

Tables 2 through 7 present the scores of students, reported by grade, on standardized achievement tests, teacher-made final examinations in content areas, English language proficiency as measured by the NYC Language Fluency Scale, and attendance comparisons for the 1978-79 school year.

TABLE 2

English Reading Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in English Reading Achievement on the Stanford Reading Achievement Test of Students with Full Instructional Treatment.

Grade	Level of Test	Initial No.	Initial Mean	Initial S.D.	Final Mean	Final S.D.	Mean Diff.	Corr. (Init.-Final)	SEmd	t	p
9th	4	60	46.87	17.36	68.17	11.11	21.30	.395	2.131	10.00	.002
	5	11	60.91	20.33	76.14	16.14	15.23	.837	3.360	4.53	.001
10th	4	66	46.00	18.39	68.56	14.39	22.56	.446	2.165	10.42	.000
	5	10	63.50	16.22	78.40	14.26	14.90	.768	3.332	4.47	.002
11th	4	58	46.57	20.63	70.79	14.00	24.22	.441	2.515	9.63	.001
	5	14	63.50	18.15	82.86	9.99	19.36	.532	4.108	4.71	.001
12th	4	36	47.42	17.82	64.06	15.91	16.64	.646	2.383	6.98	.001
	5	14	59.57	19.96	76.14	14.75	16.57	.508	4.755	3.48	.004

As can be seen from the above table all grades at each test level achieved a statistically significant gain in English reading achievement from initial to final testing.

At test level 4 the mean gain ranged from almost 17 points at grade 12 to 24 points at grade 11. The achievement at initial test time was 46 for the 10th grade and 47 for the 9th, 11th, and 12th grade. The achievement at final test time ranged from 64 at the 12th grade to 71 at the 11th grade.

At test level 5 the mean gain ranged from 15 at the 9th and 10th grades to 19 at the 11th grade. The achievement at initial test time ranged from 60 at the 12th to almost 64 for the 10th and 11th grades. At final test time the mean score ranged from 76 at the 9th and 12th grade to almost 83 at the 11th grade.

TABLE 3

Native Language Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Native Language Achievement (Spanish) on the Inter-American Series (Prueba de Lectura, Level 3) of Students with Full Instructional Treatment.

Grade	No.	Initial Mean	Initial S.D.	Final Mean	Final S.D.	Mean Diff.	Corr. (Init.-Final)	SEmd	t	p
9th	64	70.16	9.65	83.17	7.76	13.01	.680	.897	14.52	.001
10th	60	56.58	20.54	75.52	13.93	18.94	.830	1.533	12.35	.001
11th	71	58.38	20.52	75.59	14.78	17.21	.847	1.330	12.94	.001
12th	45	65.98	21.11	82.27	16.74	16.29	.822	1.794	9.08	.001

As can be seen from the above table, all grades achieved a statistically significant gain in native language reading achievement from initial to final testing. The mean gain ranged from 13 points at the 9th grade to 19 points at the 10th grade. The mean achievement at initial test time ranged from almost 57 at the 10th grade to 70 at the 9th grade. The mean achievement at final test time ranged from almost 76 for 10th and 11th grades to 83 at the 9th grade.

TABLE 4

Mathematics Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Achievement on the Prueba en Matematicas, of Students with Full Instructional Treatment Regardless of Level.

Grade	No.	Initial Mean	Initial S.D.	Final Mean	Final S.D.	Mean Diff.	Corr. (Init.-Final)	SEmd	t	p
9th	62	56.43	15.65	70.53	13.51	14.10	.874	.967	14.58	.001
10th	75	51.40	17.13	68.61	15.51	17.21	.861	1.009	17.07	.001
11th	70	57.40	15.74	71.70	15.04	14.30	.873	.929	15.39	.001
12th	46	56.49	18.02	66.57	20.39	10.08	.536	2.745	3.67	.001

As can be seen from the above table, all grades achieved a statistically significant gain in mathematical achievement from initial to final testing. The mean gain ranged from 10 points at the 12th grade to 17 points at the 10th grade. The mean achievement at initial test time ranged from 51 at the 10th grade to 57 at the 11th grade. The mean achievement at final test time ranged from almost 67 at the 12th grade to almost 72 at the 11th grade.

TABLE 5

English Language Proficiency

Number and Percentage of Students by Grade Improving One Scale Rating on the Expressive and Receptive Modes of the NYC Language Fluency Scale, Regardless of Year of Entry and Full or Partial Instructional Treatment.

Grade	Expressive			Receptive		
	No. admin.	Gain one scale rating		No. admin.	Gain one scale rating	
		No.	%		No.	%
9th	84	55	65.5	85	39	45.9
10th	96	71	74.0	98	47	48.0
11th	84	61	72.6	84	46	54.8
12th	56	41	73.2	57	35	61.4

In the expressive mode the percentage of program students gaining at least one scale rating from pre- to post-testing ranged from 65.5% at the 9th grade to 74.0% at the 10th grade.

In the receptive mode the percentage of program students gaining at least one scale rating from pre- to post-testing ranged from 45.9% at the 9th grade to 61.4% at the 12th grade.

At all grade levels there was a higher percentage of students gaining at least one scale rating in the expressive mode than in the receptive mode. The percentage difference in favor of the expressive mode ranged from 11.8% at the 12th grade to 26% at the 10th grade.

TABLE 6

Native Language Arts Content Mastery

Number and Percent of Students Passing the Teacher-Made Examinations in Native Language Arts

Grade	Fall N	Fall Number Passing	Fall Percent Passing	Spring N	Spring Number Passing	Spring Percent Passing
9	86	77	90%	86	84	98%
10	98	85	87%	98	91	93%
11	84	79	94%	84	80	95%
12	57	55	96%	57	55	96%
Total	325	296	91%	325	310	95%

The results for the combined grade levels indicate very high mastery percentages, with 91% mastering the Native Language Arts curriculum in the Fall and 95% showing mastery in the Spring. Generally, a higher percentage of students passed the tests in the Spring than in the Fall. The percent mastering ranged from a low of 87% in the tenth grade in the Fall to a high of 98% in grade nine in the Spring.

TABLE 7

Mathematics Content Mastery

Number and Percent of Students Passing the Teacher-Made Examinations in Mathematics

Grade	Fall N	Fall Number Passing	Fall Percent Passing	Spring N	Spring Number Passing	Spring Percent Passing
9	86	69	80%	86	79	92%
10	98	71	72%	98	76	78%
11	84	54	64%	84	68	81%
12	56	43	77%	57	53	69%
Total	324	237	73%	325	276	85%

Overall, students were successful in mastering the Mathematics curriculum, with 73% of the students passing the examinations in the Fall and 85% of the students passing in the Spring. Generally, the percentage of students mastering the curriculum is higher in Spring. The percentage of students passing ranged from a low of 64% at the eleventh grade level in the Fall to a high of 92% at the ninth grade level in the Spring.

TABLE 8

Science Content Mastery

Number and Percent of Students Passing the Teacher-Made Examinations in Science

Grade	Fall			Spring		
	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	86	69	80%	86	74	86%
10	98	59	60%	98	73	74%
11	84	53	63%	84	61	73%
12	57	40	68%	57	49	86%
Total	325	221	68%	325	257	79%

The results for the combined grade levels indicate that students were successful in mastering the Science curriculum, with 68% mastering the curriculum in the Fall, and 79% showing mastery at the Spring testing. Comparisons within grade levels show that the percentage of students mastering the curriculum is consistently higher in Spring than in Fall. The percentage of students passing ranged from a low of 60% in tenth grade in the Fall to a high of 86% in grades nine and twelve in the Spring.

TABLE 9

Social Studies Content Mastery

Number and Percent of Students Passing
Teacher-Made Examinations in Social Studies

Grade	Fall N	Fall Number Passing	Fall Percent Passing	Spring N	Spring Number Passing	Spring Percent Passing
9	86	59	69%	86	77	90%
10	98	71	72%	98	78	80%
11	84	62	74%	84	66	79%
12	57	39	68%	57	47	82%
Total	325	231	71%	325	268	82%

Overall, students were successful in mastering the curriculum, with 71% mastering the Social Studies curriculum in the Fall, and 82% showing mastery in the Spring. Students at each grade showed higher levels of mastery in the Spring than in the Fall. The percentage of students mastering the curriculum ranged from a low of 68% in grade twelve in the Fall to a high of 90% in grade nine in the Spring.

TABLE 10

Attendance

Attendance Percentages of Program Students in Comparison with the Attendance Percentages of the School regardless of Year of Entry.

Grade	Mean Percentage	Percentage of School	Percentage Difference
9th	87.7	57.0	30.7
10th	88.8	57.0	31.8
11th	90.4	57.0	33.4
12th	89.5	57.0	32.5

As can be seen from the above table, the attendance figures for program students were higher than the attendance figures for the school as a whole. The mean attendance percentage of program students ranged from 87.7% at the 9th grade to 90.4% at the 11th grade, indicating a percentage difference ranging from 30.7% at the 9th grade to 33.4% at the 11th in favor of program students.

Summary of measurable findings:

The following summarizes the results presented in Tables 2 through 10:

1. In the areas of achievement in English reading skills, native language achievement, and mathematics achievement, students at every grade level (9-12) demonstrated statistically significant gains from initial to final testing.

2. In the area of English Language proficiency, measured by the NYC Language Fluency Scale, all grade levels approached the program-set objective (75% of students gaining one rating scale) in the expressive mode. In the receptive mode, all grade levels fell somewhat below this percentage.

3. In the four content areas (Native Language Arts, Mathematics, Science, and Social Studies), student achievement was consistently high. Overwhelmingly, the students achieved the rogram-set criterion level of a 65% passiug rate. In Native Language Ar.. and Social Studies, all the groups of students reported met the criterion for success. In Mathematics, only one group out of eight failed to achieve the 65% passing rate; in Science, only two did not meet the criterion level.

Other Indicators:

1. Only 1% of the guidance referrals for Program students related to disciplinary problems, as compared with 49% for the school population as a whole. This exceeded Program-set criteria.

2. Of 29 graduating Program students, 23 were accepted by the colleges of their choice.

3. An "attitude questionnaire" filled out anonymously by 300

Program participants reflected a high level of satisfaction with the Program: 94% expressed high approval of all phases; 4% expressed dissatisfaction of one or more teachers; 2% felt that discipline was too rigorous.

4. Graduating Program students garnered a large number of awards, and numbered among the top-ranking achievers. The School's Valedictorian in 1979, as in the previous four years, was a Bilingual Program student.

5 100% of Program students who took the New York State Regents examination in biology passed the exam.

6. Program students won a first prize at the 41st annual Citywide Science Fair for a project on amino acids.

7. Students participated in various city-wide competitions, including a poetry reading contest sponsored by the Center for the Humanities of the New York City Board of Education, and the San Martin written composition contest sponsored by the Argentine Consulate and the Pan American Organization.

8. Parental participation in Program activities was particularly enthusiastic and responsive.

VI. Conclusions and Recommendations

Conclusions

During site visits, the evaluator spoke with Program personnel, including the Program Coordinator, two Resource Teachers, the Teacher Trainer, and the Principal. The evaluator also observed several classes, including Reading Workshops (English, two levels), Economics, and Chemistry.

The Program was found to be vibrant and vital, in large measure due to the energy and attitude of its staff. The word "enthusiasm" does not sufficiently characterize their attitude; absolute determination to serve the needs of Program students more adequately describes their work. The Program Coordinator deserves particular recognition in this respect.

Classroom visits showed Program students to be relaxed and yet attentive. Relatively small class size and the active presence of paraprofessionals in the classroom contributed to the high level of student participation. Furthermore, the pace of instruction in each class observed was rapid enough to sustain students' concentration.

Teachers seemed consciously to work at strengthening student self-esteem and promoting motivation while developing skills. For example, students reporting on biographies of famous people were encouraged to see how each individual had overcome obstacles to achieve his or her goal.

Indeed, Program students apparently have internalized the outlook of the staff--that they are capable of living up to rather elevated expectations. Their considerable achievements, as set forth in the body of this report, attest to that. Those achievements are the fulfillment of Program-set goals; but the positive disposition of Program students would seem to indicate that in the future, these students will set high standards for themselves.

For this reason, and because Program students have achieved so well and demonstrated growth in so many areas, the Integrated Bilingual Demonstration Program for High Schools at Eastern District High School should certainly be perpetuated and expanded.

Recommendations

1. The Bilingual Program's singular success in one area may, ironically, inhibit success in another. Parents' involvement has been so enthusiastic, and their stake in the Program so great, that most refuse to have their children mainstreamed even after school personnel have judged them capable of receiving instruction in English. The Program Coordinator reported that parents often threaten to pull their children out of school altogether rather than have them mainstreamed. This situation needs to be further examined; it might be dealt with in the following ways:

a. Resistance to mainstreaming may be due to a lack of continuity and articulation between the Mini School and mainstream programs, resulting in negative experiences for the students upon being transitioned. Communication between program and main school personnel should be strengthened. Furthermore, the services of a bilingual guidance counselor--not presently available to program students--might guarantee better follow-up and better continuity in programming between the Mini School and the mainstream program.

b. Resistance to mainstreaming may be partially attributable to parents' and students' comfort with the Mini School cultural orientation and protective environment. Therefore, an effort might be made to effect transition <u>within the Mini School</u>. Teachers might ease students into greater usage of English by supplementing Spanish language instruction with pertinent English vocabulary or summaries of central concepts in English, thereby increasing the use of English within the Mini School.

2. The Program Coordinator underscored the need for a bilingual guidance counselor. In light of the intense and distinct needs of this target population, and the many demands on the current staff's energies, the services of a guidance counselor would seem indicated.

3. When Eastern District High School assumes new facilities, it will accommodate a larger student population. The Mini School will also have larger quarters. The proportion of Eastern District students accepted into the Program might be

increased at that time, for a significant number of language-minority students are not now served by the Program. The Bilingual Program might also be expanded to encompass some Spanish-dominant students from other districts who are potential drop-outs, or who need the Program's highly structured setting.

4. The Teacher who designed and taught the Writing Workshop took care to provide positive models of professional/vocational achievement to female as well as male students. In a lesson on addressing correspondence, for example, she illustrated the proper format by addressing an envelope to a Dr. Mary Richards. Other teachers might be encouraged to follow this example, for some curriculum materials definately reinforce stereotypic images of women and reinforce the idea that in the world outside of school, significant achievements are attained only by men.

5. The Program Coordinator stated the need for a bilingual nurse. Considering the health problems typical of Program participants, and the fact that 80% of participants enter the Program speaking no English, the services of a bilingual nurse would seem essential.